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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/756,680	01/10/2001	Richard Cam	16337.870	4581

7590 08/25/2004
Hall, Priddy, Myers & Vande Sande
Suite 200
10220 River Road
Potomac, MD 20854

EXAMINER

WONG, BLANCHE

ART UNIT PAPER NUMBER

2667

DATE MAILED: 08/25/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/756,680

Applicant(s)

CAM ET AL.

Examiner

Blanche Wong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2001.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☒ Claim(s) 14 and 15 is/are allowed.
6) ☒ Claim(s) 1,2,10-13 is/are rejected.
7) ☒ Claim(s) 3-9 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on January 10, 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date #4.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities: extra word. In claim 1, ln. 2, the word – device – is duplicated and one should be removed. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claims 2,10,12,13** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claims 2 and 13, it is unclear whether -- out-of-band information -- is meant "out-of-band portion" as in -- in-band portion --.

With regard to claims 2 and 10, it is unclear whether – transfer – is meant "to transfer", "transferred", or something else.

With regard to claim 12, it is unclear whether – a receiver link layer device – should be "operative to receive data", not – "operative to transmit data", because – a transmit link layer device – is already – operative to transmit data --.

4. There is insufficient antecedent basis for this limitation in the claim.

Claim 2 recites the limitation "said interface" in ln. 3-4.

Claim 10 recites the limitation "each control word" in ln. 1-2.

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Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. **Claims 1,11,13** are rejected under 35 U.S.C. 102(e) as being anticipated by Cam et al. (U.S. Pat No. 6,671,758).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application

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and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

With regard to claims 1 and 11, Cam discloses a method of interfacing for packet and cell transfer col. 1, ln. 6-7 between a first layer 14,16,18,20 (PHY devices #1-4, Fig. 1 and 2) device and a second layer 22 (link layer device, Fig. 1 and 2) device, comprising:

(a) dividing control information (TCLK,TADR,TENB, etc. and RCLK,RADR,RENB, etc., Fig. 3; see also Tables 1 and 2), into an in-band portion and an out-of-band portion (it is inherent from the directions of the many arrows in Fig. 3 that signals are traveling in-band and out-of-band);

(b) transmitting the in-band portion together with data in a data path (TDAT, Table 1; RDAT, Table 2) from one of said first (PHY) and said second (link layer) layer devices to another of said first (PHY) and said second layer (link layer) devices; and

(c) transmitting the out-of-band portion outside of the data path (any other signals, Table 1 and 2) from said another of said first and said second layer devices to said one of said one of said first and said second layer devices, as recited in claim 1.

With regard to claim 13, Cam further discloses in-band portion including packet address (TADR in Table 1, RADR in Table 2; see also Fig. 3), delineation and error control coding (TPRTY in Table 1, RPRTY in Table 2, see also Fig. 3).

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7. **Claims 1,2,11** are rejected under 35 U.S.C. 102(e) as being anticipated by Catellano (U.S. Pat No. 6,690,670).

With regard to claims 1 and 11, Catellano discloses a method of interfacing for packet and cell transfer between a first layer (PHY layer device, Fig. 3) device and a second layer 22 (ATM layer device, Fig. 3) device, comprising:

(a) dividing control information 21",23"(TX Control, RX Control, Fig.3; see also 25a-f, Fig. 3), into an in-band portion and an out-of-band portion 21",23"(TX Data, RX Data, Fig. 3);

(b) transmitting the in-band portion together with data in a data path (see separate paths for Data and Control, and 25a-f, in Fig. 3) from said one of said first (PHY layer) and said second (ATM layer) layer devices to another of said first (PHY layer) and said second layer (ATM layer) devices; and

(c) transmitting the out-of-band portion outside of the data path (see separate paths for Data and Control, and 25a-f, in Fig. 3) from said another of said first and said second layer devices to said one of said one of said first and said second layer devices,

as recited in claim 1.

With regard to claim 2, Castellano discloses out-of-band portion is FIFO status flow control information col. 7, ln. 49 (see also col. 7, ln. 18-52).

Allowable Subject Matter

8. **Claims 14 and 15** are allowed.

9. The following is a statement of reasons for the indication of allowable subject matter:

With regard to claim 14, the prior art of record fails to anticipate or make obvious a deskewing circuit which “a training detector block ... [and] a plurality of transition detection blocks coupled to said registers ... an aligner block coupled to said transition detection blocks ...”

With regard to claim 15, the prior art of record fails to anticipate or make obvious a deskewing circuit where there are “17 SIPO blocks ... [and] 17 transition detection blocks...”

10. **Claims 3-9** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. **Claims 10 and 12** would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mikkila (U.S. Pat No. 6,614,807) discloses a method for data flow control between layers.

Rich (U.S. Pat No. 6,452,927) discloses a method and apparatus for providing a serial interface between an ATM layer and PHY layer.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blanche Wong whose telephone number is 571-272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BW

BW
August 20, 2004



KENNETH VANDERPUYE
PRIMARY EXAMINER